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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,184

01/28/2004

Ashok B. Nayak

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10/31/2006

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,184

Applicant(s)

NAYAK ET AL.

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,4-10 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,11,12 and 15 is/are rejected.
- 7) ☒ Claim(s) 16-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Status

Claims 1, 2, 4-12, 14-20 are currently pending.

Claims 3 and 13 have been voluntarily cancelled by the Applicant.

Claim Objections

Claims 12 and 16 are objected to because of the following informalities:

With regard to claim 12 (line 1), the word --assembly-- should be inserted after the phrase “head actuator.”

With regard to claim 16 (line 2), the word --center-- should be inserted before the word “pole” in order to maintain claim language consistency with claim language recited subsequent thereto.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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With regard to claim 1 (line 7), the phrase “the first and second shafts” lacks proper antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Nayak et al. (US 5,371,636).

As per claim 11, Nayak et al. (US 5,371,636) discloses a head actuator assembly for a tape drive, comprising a head carriage assembly (17); a voice coil holder (including flexure (39)) is removably coupled to the head carriage assembly (17) - see FIG. 3; a coarse positioner base assembly (base frame); two shafts (19, 31) mounted on the coarse positioner base assembly (see FIG. 1); the coarse positioner base (27) slidably mounted on the two shafts (19, 31) with a force bias applied on the coarse positioner base (27) against one of the two shafts (shaft 31, via spring (26)).

As per claim 15, further comprising a voice coil motor holder (including 27b) and a voice coil motor (45, 47) held by the voice coil motor holder (27b), the voice coil motor holder removably mounted on the head carriage assembly (17) - see FIGS. 3 and 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nayak et al. (US 5,371,636).

See the description of Nayak et al. (US 5,371,636), *supra*.

As per claim 1, Nayak et al. (US 5,371,636) discloses a head actuator assembly for a tape drive, comprising: a coarse positioner base assembly (drive base as seen in FIGS. 1 and 2 upon which the components are mounted); a coarse positioner base (27, 29) configured to carry a head carriage assembly (including (36)) and voice coil holder (39, 87), the coarse positioner base (27, 29) having at least first (18) and second bores (passage hole in which shaft (31) is inserted), the coarse positioner base (27) being vertically movably mounted on the first (19) and second (31) shafts such that the first and second shafts respectively extend through the first and second bores (e.g., as seen in FIGS. 1, 2 and 4).

As per claim 1, although Nayak et al. (US 5,371,636) does not explicitly disclose providing at least first and second bushings respectively in the first and second bores, Official notice is taken that such shaft/threaded engaging bushings are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the first and second bores of Nayak et al. (US 5,371,636) as including conventional and ubiquitous bushings, as is well known in the art.

The rationale is as follows: one of ordinary skill in the art would have been motivated to have provided the first and second bores of Nayak et al. (US 5,371,636) as including conventional and ubiquitous bushings, as is well known in the art in order to reduce the friction of the sliding and/or engaging elements which move relative to each other, as is well known, established and appreciated in the art.

As per claim 12, although Nayak et al. (US 5,371,636) does not expressly disclose wherein the head carriage assembly (36) comprises a plastic head carriage, and the voice coil holder (including (39)) is metallic, Official notice is taken that such head carriages being formed of a plastic material, with a voice coil holder (flexure (39)) being formed of a metal are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the head carriage assembly (36) of Nayak et al. (US 5,371,636) as comprising a plastic head carriage, and the voice coil holder (39), functioning as a flexure, as being metallic.

The rationale is as follows: one of ordinary skill in the art would have been motivated to have provided the head carriage assembly (36) of Nayak et al. (US 5,371,636) as comprising a plastic head carriage, and the voice coil holder (39), functioning as a flexure, as being metallic in order to provide a readily available, inexpensive, and easily moldable plastic material for the

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head carriage, and also providing a resilient and flexible leaf spring formed of a high tensile strength steel-metal material as the flexure/VC holder of Nayak et al. (US 5,371,636).

Response to Arguments

Applicant's arguments filed September 21, 2006 have been fully considered but they are not persuasive.

The Applicant alleges the following at page 9 through page 11 of the Response filed on September 21, 2006:

Independent claims 1 and 11 both disclose a head actuator assembly that includes a coarse positioner base which is slidably mounted on no shafts. Applicant respectfully submits that Nayak does not disclose this aspect of the claimed embodiments. Instead, rather than being slidably mounted to any shaft, Nayak discloses that the head actuator assembly is merely guided by a single shaft 31 (see Figure 2). Specifically, a spring 26 biases a u-shaped member 29 against the anti-rotation shaft to prevent rotation of the actuator relative to the lead screw 19. Further, it is readily apparent that the lead screw 19 and the actuator do not slide relative to each other ...

As lead screw 19 includes a thread, Applicant respectfully submits that tape head carriage 17 is not slidably mounted on shaft/screw 19. Restated, tape head carriage 17 can not freely/slidably move along screw 19 due to the thread. Movement of tape head carriage 17 can not be affected unless screw 19 is rotated.

Claims 1 and 11 disclose a head actuator assembly that includes a coarse positioner base slidably mounted on two shafts. Since Nayak does not disclose a coarse positioner base slidably mounted on two shafts, Applicant respectfully submits that Nayak does not disclose claims 1 and 11. Furthermore, one of the shafts in Nayak has a threaded surface. Given that at least one shaft is threaded in Nayak, one of ordinary skill in the art would not be motivated to modify Nayak to create the claimed combination as the threaded surface of the shaft would interfere with the sliding relation between the shaft and the coarse positioner.

The Examiner respectfully, but nevertheless, strenuously disagrees with the Applicant based on the evidence as supported by the facts.

More concretely, it is apparent from the Applicant's allegations that the Applicant is of the opinion that a threaded nut cannot be said to *slide* with respect to a screw shaft. Quite apparently, the Applicant is attempting to limit the relative sliding motion of shaft and a member that moves relative with respect thereto, in one linear dimension. The claims clearly do not limit such motion to a strict linear dimension.

The threads of the screw shaft (19) of Nayak slide in a rotative manner with respect to the corresponding nut, to propel the nut in a forward or backward direction. If there were no relative rotative sliding motion, how would the nut ever move? Just because the screw shaft imparts a force to the slidable nut, does not in any way preclude such a structural relationship from reading on the rejected claim language, as presently drafted.

As set forth in www.dictionary.com, the word "slide" is defined as: "to move along in continuous contact with a smooth or slippery surface." Clearly, this definition does not limit the motion to a linear, straight-line movement. The threads of the nut engage corresponding threaded grooves of the screw shaft so as to move along in continuous (rotative) contact with a smooth surface. A child on a slide, wherein the slide is shaped in a spiral/helical manner certainly can be said to slide, albeit even when the slide is not completely linear. Moreover, this is not just a play on semantics. There are indeed plethoras of threaded nut and screw shaft literature which recite that the nut and screw shaft *slide* relative to each other. As just two

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examples, US 2001/0022925 A1 is cited to support such a common reference, stating at paragraph [0017], “[t]he insert is threaded into the hole by applying torque to the head of the insert causing the insert to rotate and causing the upper surface of the exterior threads to slide along the complementally formed threads of the hole.” Emphasis added.

As another citation, US 6,844,997 B2 recites in claim 1 (COL. 10), “a protrusion [i.e., 551] projecting from an internal wall surface of said bearing portion so as to engage with said external thread of said lead screw, such that said protrusion slides up and down along said external thread following rotation of said lead screw, so as to move said head lift body linearly along said screw center axis.” Emphasis added.

As recited MPEP§2106:

Office personnel are to give claims their ***broadest reasonable interpretation*** in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). ***Limitations appearing in the specification but not recited in the claim are not read into the claim.*** *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) (“During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. . . . The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.”). [Emphasis in bold italics added].

Moreover, one must also bear in mind that limitations contained within Applicant’s arguments cannot be read into the claims for the purpose of avoiding prior art. *In re Sporeck*, 386 F.2d 924, 155 USPQ 687 (CCPA 1968).

As set forth in the MPEP§ 706, “the standard to be applied in all cases is the “preponderance of the evidence” test. In other words, an examiner should reject a claim if, in view of the prior art and evidence of record, it is more likely than not that the claim is unpatentable.” Clearly, the Examiner has established that one of ordinary skill in the art would *reasonably* construe the one-to-one correspondence with each and every element of the *claimed* invention (save the conventional bushings, which are rejected under 35 USC 103), in the manner set forth in the rejection, *supra*, by at least the *preponderance* of the evidence. The Applicant’s arguments have fallen well short of rebutting the Examiner’s *prima facie* case of anticipation and obviousness.

It is also noted that the Applicant has not seasonably challenged the Examiner’s position regarding the use of Official notice, as it pertains to conventional “bushings” and the materials forming the head carriage and voice coil holder, taken in the previous Office action (Paper No. 8) by requesting “a demand for evidence.”

As has been established in patent practice, as articulated in the MPEP § 2144.03:

If applicant does not seasonably traverse the well known statement during examination, then the object of the well known statement is taken to be admitted prior art. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943). A seasonable challenge constitutes a demand for evidence made as soon as practicable during prosecution. Thus, applicant is charged with rebutting the well known statement in the next reply after the Office action in which the well known statement was made. This is necessary because the examiner must be given the opportunity to provide evidence in the next Office action or explain why no evidence is required. If the examiner adds a reference to the rejection in the next action after applicant’s rebuttal, the newly cited reference, if it is added merely as evidence of the prior well known statement, does not result in a new issue and thus the action can potentially be made final. If no amendments are made to the claims, the examiner must not rely on any other teachings in the reference if the rejection is made final.

Since the Applicant did not seasonably traverse the well known statement during examination, the object of the well known statement has been taken to be admitted prior art.

Allowable Subject Matter

Claims 16-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 2, 4-10 and 14 are allowable.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

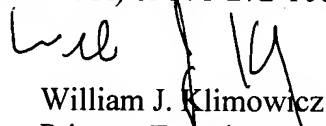
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK